Louisville Metro Air Pollution Control District

Control Device Permit Application
Form AP-300H

Condenser

Mail application to:
850 Barret Avenue
Louisville, KY 40204
OR
e-mail to:
airpermits@louisvilleky.gov

(502) 574-6000
FAX: (502) 574-5137
www.louisvilleky.gov/apcd

Plant Name:		Plant ID
Date of construction, modification, installation, or operation:	Control equipment associated with this process equipment:	

Equipment Description

Manufacturer:			Model:	
Condenser type:	☐ Shell and tube	☐ Flat plate	☐ Direct contact	Contact area:
Coolant	☐ Water	☐ Other liquid:		☐ Air
	Temperature:	Inlet - °	Outlet - °	Flow rate:
Exhaust Stream	Contact Time: sec		Removal Efficiency %	
	Temperature:	Inlet - °	Outlet - °	Flow rate:

Describe how the removal efficiency was determined:
(If other than Manufacturer's specification, include documentation supporting the claimed efficiency)

Attach a copy of the manufacturer's spec sheets for the equipment with this application

List the contaminants in the exhaust stream that are removed by condensation

Contaminant	CAS # (if applicable)	Gas stream concentration

Describe how the condensate from the exhaust stream is collected and the ultimate disposition of this material:

Instructions for Condenser

Form AP-300H

Condensers control gaseous pollutants by cooling them below their vapor/liquid phase transition temperature.

General Information

Plant Name Enter the plant name.

Plant ID This is the identification number assigned to the source by the District. If this application is for a new source for which an ID has not been assigned, leave this blank.

Equipment Description

Manufacturer Enter the name of the company that manufactures the condenser equipment.

Model Enter the model number of the equipment to be installed.

Condenser type Check the box that best describes the condenser, and enter the effective contact area.

Coolant Check whether the coolant is water, air, or some other fluid, which must be specified.

Temperature Enter the inlet and outlet temperatures of the coolant (indicating whether Fahrenheit or Celsius degrees) and the flow rate of the coolant.

Exhaust stream Enter the inlet and outlet temperatures of the exhaust stream (indicating whether Fahrenheit or Celsius degrees) and the flow rate of the gas. Also indicate the time the exhaust stream is in contact with the coolant and the expected fraction of pollutant that is removed from the exhaust stream.

Efficiency determination Indicate how the destruction efficiency was determined. (*e.g.* manufacturer's specification, calculation, stack test, *etc*). Include appropriate documentation to support destruction efficiency claims.

Breakthrough capacity Enter the capacity of the bed at which contaminant vapors begin to be found in the exhaust stream (in amounts exceeding that expected based on the removal efficiency.)

Contaminant list List the materials that are removed from the airstream by the condenser. If a CAS registration number exists for the material, list that as well. Finally, list the typical concentration of the contaminant in the exhaust gas stream.